

Exhibit B

# CURRENT PROTOCOLS IN MOLECULAR BIOLOGY

VOLUME 3

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**SDS electrophoresis buffer, 5×**

15.1 g Tris base  
72.0 g glycine  
5.0 g SDS  
H<sub>2</sub>O to 1000 ml  
Dilute to 1× or 2× for working solution, as appropriate

*Do not adjust the pH of the stock solution, as the solution is pH 8.3 when diluted. Store at 0° to 4°C until use (up to 1 month).*

**SED (standard enzyme diluent)**

20 mM Tris·Cl, pH 7.5  
500 µg/ml bovine serum albumin (Pentax Fraction V)  
10 mM 2-mercaptoethanol  
Store up to 1 month at 4°C

**Sodium acetate, 3 M**

Dissolve 408 g sodium acetate·3H<sub>2</sub>O in 800 ml H<sub>2</sub>O  
Add H<sub>2</sub>O to 1 liter  
Adjust pH to 4.8 or 5.2 (as desired) with 3 M acetic acid

**Sodium acetate buffer, 0.1 M**

*Solution A:* 11.55 ml glacial acetic acid/liter (0.2 M).

*Solution B:* 27.2 g sodium acetate (NaC<sub>2</sub>H<sub>3</sub>O<sub>2</sub>·3H<sub>2</sub>O)/liter (0.2 M).

Referring to Table A.2.2 for desired pH, mix the indicated volumes of solutions A and B, then dilute with H<sub>2</sub>O to 100 ml. (See Potassium acetate buffer recipe for further details.)

**Sodium phosphate buffer, 0.1 M**

*Solution A:* 27.6 g NaH<sub>2</sub>PO<sub>4</sub>·H<sub>2</sub>O per liter (0.2 M).

*Solution B:* 53.65 g Na<sub>2</sub>HPO<sub>4</sub>·7H<sub>2</sub>O per liter (0.2 M).

Referring to Table A.2.3 for desired pH, mix the indicated volumes of solutions A and B, then dilute with H<sub>2</sub>O to 200 ml. (See Potassium phosphate buffer recipe for further details.)

**SSC (sodium chloride/sodium citrate), 20×**

3 M NaCl (175 g/liter)  
0.3 M Na<sub>3</sub>citrate·2H<sub>2</sub>O (88 g/liter)  
Adjust pH to 7.0 with 1 M HCl

**STE buffer**

10 mM Tris Cl, pH 7.5  
10 mM NaCl  
1 mM EDTA, pH 8.0

**TAE (Tris/acetate/EDTA) electrophoresis buffer**

*50× stock solution:*

242 g Tris base  
57.1 ml glacial acetic acid  
37.2 g Na<sub>2</sub>EDTA·2H<sub>2</sub>O  
H<sub>2</sub>O to 1 liter

*Working solution, pH ~8.5:*

40 mM Tris·acetate  
2 mM Na<sub>2</sub>EDTA·2H<sub>2</sub>O

**TBE (Tris/borate/EDTA) electrophoresis buffer**

*10× stock solution, 1 liter:*

108 g Tris base (890 mM)  
55 g boric acid (890 mM)  
40 ml 0.5 M EDTA, pH 8.0 (20 mM)